WILEY-INTERSCIENCE
a division of John Wiley & Sons, Inc.
605 Third Avenue, New York, N.Y. 10016

Introducing a new series
***by* and *for* professionals—**
THE WILEY COMMUNIGRAPH SERIES
ON BUSINESS DATA PROCESSING

New books to help you develop and maintain your technical competence as the business data processing field grows and becomes more complex.

03107870NELSON-TH
MR.THEODOR H.NELS
BOX 3
SCHOOLEYS MT N

Postage
Will be Paid
by
Addressee

BUSINESS REPLY MA
First Class Permit No. 32664, New Y

Wiley-Interscience

a division of **John Wiley & Sons, I**

605 Third Avenue.

New York, N.Y. 10016

Dept. # 545

WILEY-INTERSCIENCE A DIVISION OF
JOHN WILEY & SONS, INC., PUBLISHERS
605 THIRD AVENUE, NEW YORK, N.Y. 10016 (212) 867-9800 CABLE: JONWILE

MICHAEL HARRIS, VICE PRESIDENT

Dear Sir,

It is my pleasure to be able to introduce you to an important new series, the Wiley Communigraph Series on Business Data Processing, under the capable editorship of Richard G. Canning and J. Daniel Couger. We can now offer you some of the volumes in this series and in this brochure you'll find detailed descriptions of these first books.

You, like others involved in any way in business data processing, will find much of value in these books. As computers become integral parts of more and more of our technological and business world, the data processing field becomes more complex. With the books of the Wiley Communigraph Series you'll be able to develop and maintain your technical competence in the field.

Written on a practical level by experts in the field, each book focuses on a selected key area. Whether you're interested in an advanced discussion or a general background of a specific area, you'll find what you're looking for in this series.

The Series is divided into three parts, each aimed at a different level of interest. The books now available are--

PERSONNEL IMPLICATIONS FOR BUSINESS DATA PROCESSING, by Robert A. Dickmann
DESIGN OF SEQUENTIAL FILE SYSTEMS, by Thomas R. Gildersleeve
MANAGEMENT REPORTING SYSTEMS, by James M. McKeever, in collaboration with Benedict Kruse
A GUIDE TO PACKAGED SYSTEMS, by Robert V. Head
CONTROL OF THE INFORMATION SYSTEM DEVELOPMENT CYCLE, by Robert I. Benjamin
DECISION TABLES: THEORY AND PRACTICE, by Solomon L. Pollack, Harry T. Hicks, Jr., and William J. Harrison
AN INTRODUCTION TO DATA BASE DESIGN, by John K. Lyon

Read about these books inside. I'm sure you'll find they're of value to you now, and will provide invaluable reference in the future.

For your convenience, an order form is provided on the back of the brochure, and I've enclosed a postage-paid return envelope.

Cordially,

Richard Hildebrand

Richard Hildebrand
Marketing Manager

ORDER FORM

WILEY-INTERSCIENCE

a division of JOHN WILEY & SONS, Inc.
605 Third Avenue, New York, N.Y. 10016

Gentlemen:

Please send me the books I have checked below:

- ☐ 0 471 21280-6 DICKMANN: Personnel Implications for Business Data Processing, @ $7.95
- ☐ 0 471 29900-6 GILDERSLEEVE: Design of Sequential File Systems, @ $4.95
- ☐ 0 471 58440-1 McKEEVER/KRUSE: Management Reporting Systems, @ $7.95
- ☐ 0 471 36600-5 HEAD: A Guide to Packaged Systems, @ $7.95
- ☐ 0 471 06590-0 BENJAMIN: Control of the Information System Development Cycle, @ $7.95
- ☐ 0 471 69150-X POLLACK/HICKS/HARRISON: Decision Tables: Theory and Practice, @ $9.95
- ☐ 0 471 55739-0 LYON: An Introduction to Data Base Design, @ $7.95

Prices subject to change without notice.

- ☐ My check (Money Order) for $_____ is enclosed. Wiley-Interscience pays all postage and handling charges*. I understand that if I am not satisfied with any of the book(s), I may return any part of the order in 10 days for a refund.
- ☐ Bill me*. I will pay postage and handling.
- ☐ Purchase order enclosed.

* Restricted to the continental United States.

GUARANTEE

All Wiley-Interscience books are unconditionally guaranteed. Return any book within 10 days of receipt for a full cash refund if unsatisfactory for any reason.

NAME .....

TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP ..

A New Wiley Series Designed Especially for Business Data Processing Pr

THE WILEY COMMUNIGRAPH SERIE

Edited by RICHARD G. CANNING, Publisher, Canning Publications, Inc.; and J. DANIEL COUGER, Professor of Management and Computer Science, University of Colorado

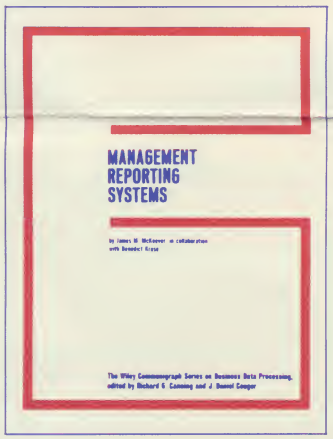
This new paperback series will enable all professionals to maintain and develop their technical competence in the business/management applications of the computer. The term "Communigraph" is an apt description of the books in the series—brief but comprehensive treatments of individual subjects. The publications in the series will enable everyone in business data processing to gain an understanding of the many specialized areas within the computer field.

The rapid increase in breadth, complexity, and the dynamic characteristics of the computer field has created an information gap, a gap that this series bridges. The books cover a wide variety of areas within the field, from data base design to business planning via simulation, from hardware-software evaluation and selection to personnel considerations for business data processing.

These books will help the practitioner cope with the problems of developing and maintaining technical competence. They will aid the novice in upgrading his competence to reach the experienced practitioner level. Experienced system analysts and programmers, as well as those in management, will be able to broaden their knowledge to include new specialties that adjoin and affect their own areas of interest.

"Red Titles" n

The practical steps to take in order to design and implement computer based, terminal oriented management systems—



MANAGEMENT REPORTING SYSTEMS

By JAMES M. McKEEVER, Terminal and Display, Inc.; in collaboration with BENEDICT KRUSE, President, Frank Associates

"On-line management reporting capabilities are in the process of triggering major changes in the information processing environment.

"From a management standpoint, the impetus is loud and clear—strong and unmistakable. Management, at the top level, is becoming increasingly vocal in its demands for fingertip access to computer-digested information." This is how the authors analyze the present status of management reporting systems.

While this need exists, there has been an informational and educational gap in the area of implementation of management information systems. This book was written to help bridge this gap and to supply information for personnel on both the operational and executive levels. The treatment is not an introductory one, however. The authors assume the reader is conversant with data processing systems and terminology, and is particularly familiar with the general principles of multiprogramming and on-line systems. Because of this, the book is aimed at those with a direct interest or involvement in the development of systems with management reporting objectives.

The book is designed for multidisciplinary use. The authors realize that successful implementation of a management information system depends on the coordination of people with widespread interests and responsibilities.

The book is of particular importance to those in data processing, line, and departmental management. These people must be able to communicate with others on all levels within the company, and to do so, need a complete understanding of the on-line computer systems. Top management people, because they are the ones who provide the impetus in most cases, will also find the book informative, since it details exactly what on-line reporting systems are, what they can accomplish, and how they will improve an organization.

Programmers will find the book valuable in its presentation of the new sets of concepts and working rules needed to make the transition from the usual data processing into the different specialty of on-line information system programming. Systems designers will find the overview they need of communications software and of the special needs of on-line application programming.

CONTENTS

The MIS Challenge
Initiation, Staffing and Objectives
Determining Information Requirements
The Data Base
Input—Timeliness, Methods and Responsibilities
User Inquiries—Terminals and Languages
Software Design and Acquisition
Scheduling and Control of Project Implementation
Developing User Manuals and Training Programs
Changing the MIS to Meet Emerging Requirements.

0 471 58440-1 1971 94 pages
. . . . . $7.95, paper

ofessionals—

S ON BUSINESS DATA PROCESSING

To help reach those on all levels of data processing, the books in the series have been divided into three main categories, each covering a particular level and "color coded" in their jacket design.

"Red Titles"

These books provide background information primarily for Data Processing Managers, Business Programmers, Analysts, and others who want this information about the subject.

"Blue Titles"

Designed for Business Programmers and Analysts, and Data Processing Managers, these titles are for those with some experience in the subject, who wish to study it in more technical depth.

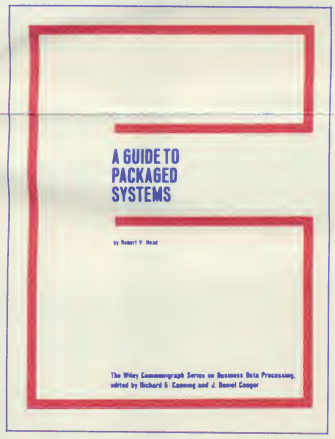
"Gold Titles"

Highly technical discussions are included in this category, designed for Senior Business Programmers, Analysts, and Data Processing Managers with extensive experience.

The unique format, broad scope of coverage, and contributions from experienced professionals in many areas, all help to make this series the most practical set of working guides available to business data processing professionals.

ow available—

A complete guide to the evaluation and selection of packaged software products, written from the standpoint of the user—



A GUIDE TO PACKAGED SYSTEMS

By ROBERT V. HEAD, Information Systems Consultant

A packaged systems approach to computer programs helps to distribute the high cost of system development among many users, thus lowering the cost for each. While this is an obvious benefit for management concerned with the high cost of computer hard and software, the data processing manager also benefits from this system. This new book is an ideal guide to packaged systems for both the person involved in data processing and the one in top management.

The author has also intended the book as a guide for potential users of packaged systems. He outlines briefly the development and benefits of this approach, and methods for its implementation. With its wide future potential in technology and business, the packaged system will find more and more uses; but only if those on all levels of data processing are aware of its proper use and value. This book puts all this information in perspective for those who might benefit from this system, as well as for those already using it.

In judging the effectiveness of a packaged system for a particular organization, an analysis is necessary to determine which kinds of systems can be generalized and which cannot. This book can be used as a basis for this analysis, with its coverage of the technical approaches currently being taken, the many successful applications, and the economic benefits to be gained. The author has identified the origin and current status of packaged systems, and reviews the problems in developing such systems, including their installation and maintenance, within a company environment. He has listed sources of packaged systems, listed and discussed their evaluation criterias, and discussed program protection—all of which will provide practical help for the prospective user, and reference for the current user.

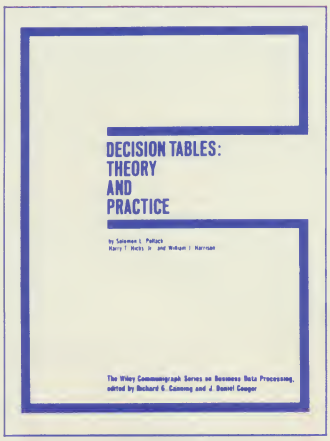
Intended to protect the user's interests throughout the evaluation and procurement cycle, the author has carefully written all of the material in this book from the user's viewpoint. The result is a practical guide covering this new computer subfield from both the technical aspects of package evaluation and the business relationships between buyer and seller.

CONTENTS

Evolution of Packaged Systems
Types and Sources of Packaged Systems
Evaluation and Selection
Examples of Packaged Systems
Business Relationships
Future of Packaged Systems
Appendix A: Companies Marketing Packaged Systems
Appendix B: Periodicals Providing Software Product Information
Appendix C: Internal Revenue Procedure 69-21
Appendix D: Feature List of Generalized Data Base Management Systems
Appendix E: Sample Agreement of Sale
Appendix F: License Agreement for IBM Program Products
Bibliography
Footnotes

0 471 36600-5 1971 116 pages
. . . . . $7.95, paper

The first extensive development of decision table theory, with applications to system analysis and design, and computer programming—



CONTENTS

Introduction
Theoretical Foundations
Analysis and Implications of Decision Tables
Uses and Development of Decision Tables
Table Translation—Decomposition Algorithms
Bibliography
Appendix I: Proof of Decision Table Theorems
Appendix II: An Introduction to COBOL
Appendix III: Decision Table Translation Algorithms
Notes Section

0 471 69150-X 1971 192 pages
. . . . . .$9.95, paper

DECISION TABLES: THEORY AND PRACTICE

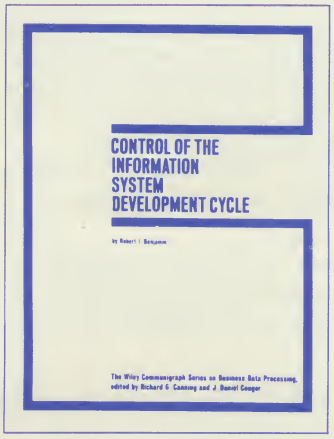
By SOLOMON L. POLLACK, S.D. Leidesdorf and Company; HARRY T. HICKS, JR., Information Management, Inc.; and WILLIAM J. HARRISON, Fireman's Fund Insurance Company

All of the significant areas of decision tables are covered in this book. The authors discuss theory, the application of decision tables to system analysis, system design, and computer programming. As an extensive development of this area, it is the ideal starting point for anyone attempting to fully exploit the potential available from the use of decision tables.

The comprehensive information supplied in the book will enable the beginner to start writing his own decision tables, and those already using decision tables will be able to improve their skills. An exhaustive checklist for writing these tables will be an invaluable aid to all workers, whether beginning or advanced.

It is the first book on decision tables to define dependent conditions and provide a mechanism to write the tables that effectively take these dependencies into account in producing more efficient computer codes. It also discusses the use of decision tables as an analytic tool. The authors have provided a history and comparison of the various techniques for converting decision tables to computer programs that have evolved over the past decade.

An examination of the system development cycle and its control—



CONTENTS

Introduction
Concept of Structural Standards
The Problems that Confront the Systems Development Manager
Basic Principles for Controlling the Systems Development Process
The System Development Cycle Is the Primary Structural Standard
Feasibility Study Phase
System Specification Phase
System Engineering Phase
Programming and Procedure Development
Implementation
System Operation
The Design of Structural Standards

0 471 06590-0 1971 112 pages

WILEY-INTERSCIENCE a div
605
In Ca

ow available—

CONTROL OF THE INFORMATION SYSTEM DEVELOPMENT CYCLE

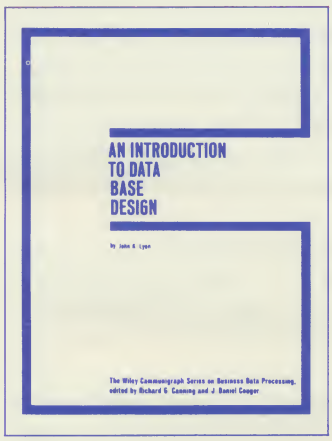
By ROBERT I. BENJAMIN, Kraftco Corporation

This book evolves a conceptual methodology for controlling the development of information systems. The methodology is described at a general level, to be applicable and easily modified to meet the needs of the many types of organizations that develop information systems—large business, governmental organizations, and smaller independent systems development organizations.

To cover the subject, the author starts with a description of the problem environment in which information systems are developed. He explores the relation of the development of systems to other more common business endeavors, such as new product development, then presents a series of axioms that are fundamental to controlling the information system development cycle. Next is a description of a model of the development cycle. Finally, he presents a series of structural standards for controlling the development cycle.

sion of JOHN WILEY & SONS, Inc.
Third Avenue, New York, N.Y. 10016
nada: John Wiley & Sons Canada, Ltd.
22 Worcester Road, Rexdale, Ontario

An introduction to the concepts and methods for the process of data base design from initial inception through final implementation—



CONTENTS

Overview—the Data Base
Logical Organization—the Basis of Structure
Graphical Notation—the Basis of Communication
Modeling—the Basis of Design
Physical Organization—the Basis of Implementation
Implementation—Physical Logical Trade-Off
Efficiency—the Thinking Man's Design
Examples of Data Base Design

0 471 55739-0 1971 96 pages
. . . . . $7.95, paper

AN INTRODUCTION TO DATA BASE DESIGN

By JOHN K. LYON, Honeywell Information Systems, Inc.

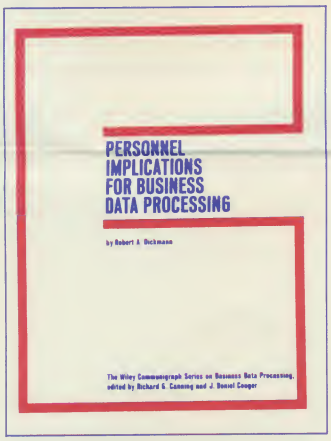
Written for the data processing manager, the programmer, analyst, and designer who is aware of the limitations of conventional techniques for storing, retrieving, and processing information, this book introduces the potential of a data base, and shows how to apply the techniques of data base design.

In the first part of his new book, the author provides an objective, decisive image of a data base. From this definition, he goes on to the concepts and methods of data base design to introduce, through discussion and example, the process of design from initial inception through final implementation.

The techniques described in the book have, for the most part, been developed, evaluated, and extended during the past six years on a variety of equipment and applications. They include manufacturing, resource allocation, inventory control, order entry, general accounting, project control, defense intelligence, warehouse and distribution analysis, and selective dissemination of information. Each of these applications, characterized by its own distinctive elements, contains elements common to the others and illustrates the importance of modeling as part of the process of designing a data base.

"Red Titles" n

How to select, train, appraise, and manage employees on all levels of data processing—



CONTENTS

Staffing the Data Processing Installation
Selecting the Inexperienced Employee
Selecting Experienced Computer Personnel
Training Computer Personnel
Performance Evaluation
Other Management Responsibilities
Appendix A: Psychological Tests Currently Available for Computer Personnel
Appendix B: Validating a Psychological Instrument
Appendix C: Job Descriptions in Business Data Processing and Definition of Functional Job Analysis Levels
Appendix D: Accredited Data Processing Schools
Bibliography
Suggested Reading

0 471 21280-6* 1971 117 pages
.....$7.95, paper

*This and other numbers are International Standard Book Numbers (ISBN)

PERSONNEL IMPLICATIONS FOR BUSINESS DATA PROCESSING

By Robert A. Dickmann,
The Johns Hopkins University

The general view of this book is that the responsibilities of the data processing manager are integrated personnel system problems. With the complexity of the field today, the data processing manager, his senior programmers, and system analysts can no longer depend on the personnel department alone to solve employee problems. To cover this situation, the author of this book provides the personnel guidelines the data processing manager needs.

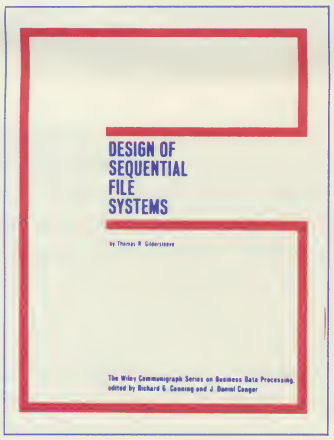
The author bridges the gap between the reports of researchers and the practical needs of data processing managers. His systematic and practical approach to the situation covers the selection, training, appraisal, and management of computer personnel on all levels, from key punch and machine operators to senior programmers and system analysts.

There is a complete listing of current psychological tests used in the selection of computer personnel, as well as a discussion of their reliability and validity. The author describes the duties and responsibilities of typical jobs in a business data processing installation, showing what workers on all levels should be expected to do. He covers new as well as traditional management techniques which can help retain desirable employees. A list of presently accredited data processing schools is also provided for further reference when considering an applicant, or as places for proper employee training.

As the field of data processing expands, the personnel problems of the data processing manager are also expanding. This book will help those in the field cope with today's problems as well as anticipate and help eliminate problems that may arise in the future. With its extensive information, it will be an invaluable aid to data processing managers. The book is also an ideal reference for personnel managers and training directors dealing with this field.

ow available—

The various aspects of sequential data processing examined both individually and as they relate to the entire system—



CONTENTS

Introduction
File Maintenance
File Organization
Run Organization
Summary

0 471 29900-6 1971 49 pages
. . . . . .$4.95, paper

DESIGN OF SEQUENTIAL FILE SYSTEMS

By THOMAS R. GILDERSLEEVE, Vice President, Newkirk, Gildersleeve, Prendergast and Associates, Inc.

A clear and concise presentation, this book focuses on the design of files and procedures for sequential storage media. It covers basic sequential data processing operations, sequential file organization, and program organization. With a practical outlook, the author gives special emphasis to those aspects of sequential file systems design where the most expensive and easily avoided mistakes are commonly made. The author's organization allows individual study of each area, as well as a total fundamental presentation of the subject.

The author has divided his material into four main discussion areas. The first of these is an introduction to the subject. It is concerned with the main concepts of data processing, the distinction between sequential and random data processing, the characteristics of various data-storage media, and the classification of these media into sequential and random categories.

The second section, on file maintenance, treats the basic operations of sequential data processing and the fundamental problems that these basic operations pose. In this area, the author discusses the concept of an updating cycle, the sorting and validation of the transaction file, the change journal, and the basic operation of the updating run. The next section is concerned with sequential file organization, and covers such topics as the importance of minimizing record length, the most efficient arrangement of data within the record, the use and organization of a variable-length record, optimum block size, and the advantages of file consolidation.

Section four considers the impact of sequential file organization on run organization, or the organization of the programs passing the file. And in the last section of the book, the author summarizes his coverage of sequential file systems.

With its comprehensive coverage of sequential file systems, this book will be valuable to all business data processing people. Whether managers, programmers, or systems analysts, all workers will find this to be an important guide and reference.